

Indiana Department of Environmental Management

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(Text does not include verbatim comments)

Good morning. I am pleased to be with you today.

Don asked me to join you today to talk about the Indiana Department of Environmental Management, and that is what I plan to do. After telling you a little about myself, I will run through the current emphases for IDEM and then review information and materials that may be of interest and help to you, as educators. After I conclude my comments, we will walk through many of the resources we have available for teachers and students at our Web site. I would like to introduce Mark Amick who is joining me today to walk through our web site with us. Finally, I would be interested in hearing from you what type of environmental education materials you would like to see be made available by IDEM.

I have a great deal of respect for educators since formal education has played such a major role in my life. In addition to the usual K-12 years of education, I obtained a BS degree, dabbled in a graduate program, and ultimately went on to law school. Teachers have obviously played a crucial role through most of my life, so I am honored to speak to a group of educators.

The Roman statesman, Cicero, wrote: "The aim of oratory, or public speaking, is to teach, to delight and to move." I cannot guarantee you will be delighted by what I say today; but I will be pleased if you are moved to continue placing an emphasis on environmental education. And I hope that I am able to "teach" the teachers a few new things this morning.

Before I discuss how we at IDEM work to teach Hoosier youth about the environment, let me introduce myself.

Governor O'Bannon appointed me commissioner of the Indiana Department of Environmental Management on April 1 - just about a year ago - and I joined the staff on April 12. Before coming to IDEM, I spent six years with the Indiana Department of Natural Resources, serving four years as chief legal counsel and two years as deputy director of the Bureau of Water and Resource Regulation. My Bureau was comprised of the divisions of Soil Conservation, Water, Entomology & Plant Pathology, Fish & Wildlife, and Outdoor Recreation. It was in that capacity that I worked closely with the Advisory Council to the Bureau and where I had the opportunity to work with Don Van Meter.

I grew up in the Chicago area and earned my bachelor's degree from the University of Illinois in Champaign-Urbana.

I got my feet wet in the work-a-day world and ultimately returned to school to get a law degree from Indiana University in Indianapolis. Before joining state government, I practiced law in Indianapolis.

I mention my background because a part of who I am and where I come from is important to our discussions here today and to this conference.

Some of my fondest memories as a child growing up in the northern suburbs of Chicago are of watching sunrises over Lake Michigan, seeking out the natural world wherever I could find it, and watching with fascination the change of each season. I also remember crushing cans at home and making my Dad drive me to the recycling center where I took great delight in recycling glass by smashing green, brown, and clear bottles in their separate bins. In my early adult years I spent a great deal of time exploring natural areas in the Midwest through camping, hiking, canoeing and cross-country skiing.

In many ways, those early experiences established in me an affinity for the outdoors and a love for the environment that persist to this day. They also played a major role in my ultimate choice of careers.

My government service has provided me the opportunity to travel the state and learn more about its natural and environmental diversity. The rolling, wooded hills of southern Indiana are so different from the internationally significant dune and swale geography on the shores of Lake Michigan. The gracefulness of the Wabash River and the valley through which it flows is a stark contrast to the open, flat farmland of central Indiana. The significant archeological sites in the Ohio River Valley, to the karst topography of the South Central part of the state, and back to the fossil beds on the Ohio: Indiana is far more diverse than we tend to give it credit for.

The diversity of wildlife is also remarkable; we are blessed with being in the migratory path of the great Sandhill Crane, we have reestablished the river otter population, and are just now learning of the extent of Indiana's bobcat population - yes bobcats! And the wildlife, whether in the water, in the air, or on the land, is something most Indiana children don't know first hand. Just last week a friend of mine, a woman of about forty, told me that she had just seen "scary" wildlife in central Indiana - it was a turkey buzzard. She had no idea such creatures lived in this state! As educators, you are in a unique position to teach our children about their environment so they too do not grow up to be scared by the sight of a turkey buzzard on the side of the road, doing what turkey buzzards do.

I first learned to appreciate the environment as a child. And a great deal of what I learned was from my teachers. I still have vivid memories of class outings to the woods across the street from my elementary school to go on "nature walks" where we collected leaves and acorns. In retrospect, that woods was probably no greater than a quarter of an acre, but at that age it could have been the hundred acre forest.

That early childhood orientation lead to my adult enjoyment of outdoor activities and then dictated, as I have indicated, my choices for career. But many children today do not have these advantages or their lives are so occupied with other activities that they don't have time to enjoy

and understand our environment. There are two things that have greatly affected young Hoosier's connection to the environment.

First, we are increasingly urban and less rural. More and more people are not learning to appreciate the out-of-doors as youngsters. More kids are growing up in city neighborhoods or suburban housing developments. And there are less and less "outdoor settings" available for kids to play.

The second factor is that both urban and rural kids are spending more time indoors in sedentary activities. They are spending more time in front of a computer screen or video game than in the woods, by a stream, or on a shoreline.

And we have learned that environmental lessons are best learned by hands-on experiences. Too often kids don't grow up learning about the environment and learning to enjoy it. That's why at IDEM we have worked with educators to design programs that give children hands-on environmental experiences. It is the most effective way for learning to make any sense.

And the need for hands-on environmental education makes the role of the teacher even greater. So now it is you, and we at IDEM, who have the responsibility of teaching a greater appreciation for the environment.

More than most others, you here today understand the importance of why we need to teach about the environment. Without an understanding of and appreciation for the environment, today's youth are at risk of not making wise choices as adults, choices that will impact the lives of the generations who follow them.

We face a time when technology ostensibly gives us the choice between growth, greater comfort, or wealth on the one hand, and protecting our environment and resources on the other. But these goals need not be mutually exclusive. It is our job to teach students how to achieve both goals, so that they make wise choices tomorrow.

It's a cliché that today's students are tomorrow's leaders . . . but it is also true. Those faces looking back at you in your classrooms will make the decisions that will someday affect us as elders, as well as our state. Without a solid, fundamental understanding of the environment, they risk making decisions that will harm the environment.

As we look around the state today we see serious environmental challenges facing us. Many of the challenges are the result of a lack of understanding by generations that came before us. For example, we face PCB pollution in most all Indiana streams and many lakes. PCBs, in the system of small children, can lead to serious learning disorders. These PCBs are in our environment because when they were used, we had no idea of the long-range impact they would have.

Our predecessors did not always have a full grasp of the consequences of their actions. So today we have a mess to clean up around the state.

Today we have a better understanding of the potential consequences of what we do. But are we in danger of becoming less concerned about the consequences? Do today's youth have a full understanding of what losing a healthy environment can mean? These are issues we must be careful to address. We must be sure to find ways to teach these lessons to children.

Although it is not formally stated, we at IDEM are teachers. The great jurist, Louis Brandeis wrote in a case called *Olmstead vs. United States* in 1928: "Our government is the potent, omnipresent teacher. For good or ill, it teaches the whole people by example."

The choices we make, the decisions we reach, and the actions we take, all speak more loudly than what we say. And that is why at IDEM we have a major effort to teach and be a teaching partner. Many of these precepts are embodied in the four two year priorities we have set for the agency. Let me briefly share them with you.

The priorities we have established for the agency are: 1)Reducing Exposure to Toxics, 2)Partnering for Liveable Environments, 3)Communicating Environmental Information, and 4)Building a Better IDEM

We are working to reduce exposure to toxics through education and outreach. In many ways this might be our most important goal. Let me highlight a couple of the specific projects we are beginning to identify in this area.

We are developing an integrated pest management pilot program and working with child care facilities and schools to introduce them to integrated pest management practices. We are also expanding our child care efforts. We have also begun to look at the issue of asthma in the state, in conjunction with many people outside of our agency to get a better handle on the issue and the occurrence in Indiana. These are just a few of the new or expanded efforts we are making to reduce Hoosier exposure to toxics.

The next priority is partnering with local communities for liveable environments. Our Community Relations office is working hard to improve accessibility and empowering local communities in environmental matters.

We are also working hard to develop ways to assist communities in environmental planning. Too often we in Indiana face problems that are the result of shortsightedness or poor planning. Too many communities don't have the tools and resources they need to include environmental issues in their growth plans.

By Communicating Environmental Information, we are making information more accessible to Hoosiers as well as our employees to help them in their daily tasks. Sometimes someone in the agency will have developed great information and put it in a very usable form. However, somebody situated two floors away doesn't know about it even though it could be very useful to the employee's daily job. And almost always, if someone two floors away doesn't know about it, someone at the other end of the state is even more in the dark about it.

We are attacking these weaknesses to make the environmental information more accessible. We are also working to integrate various databases and make them known and easy to get to.

By Building a Better IDEM, we are examining how to work better and smarter as an agency. We want to improve our work environment, in part, by doing more to make you and other Hoosiers more aware of what we do. We are also working hard to walk the walk as well as talk the talk.

IDEM is a leader in Governor O'Bannon's "Greening the Government" initiative. We have goals to buy and use more recycled materials on a regular basis. We are working hard at source reduction for paper . . . and believe me . . . reducing the amount of paper in a bureaucracy as large as ours is no easy feat . . . but we will do it. We also plan to enhance and improve our use of the regional offices in Northwest Indiana, Southwest Indiana, and Northern Indiana.

Those are the priorities . . . and areas where we at IDEM can work with Hoosiers and also teach by example. But we have other efforts to teach about the environment.

One project that is coming up again is our Earth Day classroom project. This year marks the thirtieth anniversary of the National observance of Earth Day and the tenth anniversary of Earth Day Indiana. Each year we provide an opportunity for IDEM employees to spend a day, or part of a day, at a school teaching environmental issues. This program not only helps classroom teachers augment their curricula but it helps us keep in touch. Last year we visited 125 schools and approximately 20,000 teachers and students had the opportunity to participate in a presentation. Letters are going out this week to each school with information on how to sign up for a visit from a state representative. Also, this year DNR and DOC- Energy Division will be joining us in making presentations. We will be in classrooms the week of April 24 this year.

Our main offices in Indianapolis are on the tenth, eleventh, twelfth, and thirteenth floors of the state government center. The view is nice, especially on a bright, sunny day. But the isolation can be suffocating. The temptation is to begin to look at the work we do as just so much paperwork to be completed. But by getting back to the classroom from time to time, we are reminded of how important it really is. We return from the classroom with greater insight and renewed energy.

Two other ways we teach environmental issues is through community outreach and our dealings with the news media. Both give us a chance to explain to the public what we are doing and why. We often have public meetings about important local issues. A calendar of public meetings can be found at our web site. We can get anywhere from ten to five hundred people at a meeting. Regardless of the number of people in attendance, we have a chance to answer questions and teach the public about the issues we face. We also provide two major publications each year. Our ***State of the Environment Report*** and our Annual Report give the public a great deal of information about who we are and what we are doing. These publications are available on our web page. Another good source of information about IDEM is contained in our bimonthly newspaper: Indiana Environment.

As you may already know, or may be learning today, our Web site can be a useful teaching tool. Just the other day Lt. Governor Kernan and I unveiled a new Internet tool designed by IDEM:

the Permit Guide. This Guide provides a gateway to doing research on environmental matter. It shows what regulations an entity needs to follow to start a new business. It also shows what reports a business may be required to file with IDEM. This new section of our site is larger than the entire Web site was three and a half years ago when we launched IDEM's first Web site. Our Web site started with 73 files. Today it has more than 6,000 files and is one of the largest and most visited Web sites in state government.

One of the areas on our site which may be of particular interest for your students is "Students, Teachers & Kids." Mark will show us a little more about this site later.

We hope our Web site and these other efforts are useful teaching tools. They can help, in the words of your conference, "prepare environmentally literate citizens for the Twenty-First Century."

But let me return for a few minutes to children and young people. At IDEM we are making a special effort to improve children's environment. Many of you may be familiar with Governor O'Bannon's "Building Bright Beginnings" project to help Hoosier children. As a part of that effort, IDEM has several programs. We are working to make child care centers more environmentally friendly and we have mercury and lead abatement programs aimed at children. Lead and mercury are contaminants that are particularly insidious for children. They both can affect a child's ability to learn.

We also have special curricula developed to assist classroom teachers teach the environment. I would like to talk about Project LEAP for a couple minutes. While the program was initially designed for grades 3-8, there is a lot of useful information for older students, particularly from the lending library.

LEAP is an acronym for Learning and Environmental Awareness Partnership. It is a project that provides free educational materials to Indiana educators including student and teacher text, classroom activities, scientific investigations, references, and hands-on environmental projects.

The curriculum is Indiana specific with information about pollution and its affects on human health and the ecosystem. The project supports environmental projects that encourage students to collect and analyze meaningful data from an outdoor environment lab that Project LEAP helps establish for schools. A team of Indiana teachers, educational and environmental professionals, evaluates the materials provided by Project LEAP.

Please note that these Project LEAP projects are often hands-on. I mentioned earlier the disconnect today between our kids and their environment. The best way, we believe, to heal this disconnect is to provide hands-on projects. Actual involvement by the students helps them learn to appreciate the importance of the environment.

Project LEAP has several activities for students that involve "environmental indicators." Environmental indicators, as I am sure all of you know, are plants or animals that are highly susceptible, or intolerant, to environmental pollution. These species act as "early warning signs" of environmental problems; like the proverbial canary in the coal mine. The projects include acid

rain, which teaches about pH or acidity in the water; milkweed and soybeans, that teach about ozone; and butterflies, which can provide lessons about historic species tracking.

Not only do these activities provide real-life projects, students can also compare their results to the results from other students around the state. Results from these experiments can be uploaded to the Project LEAP section of the IDEM Web site.

Project LEAP also provides assistance to help teachers and students get started with their activities.

Using AmeriCorps members, IDEM can provide a workshop for students, which covers all aspects of the environmental indicator projects. Students are trained on the general concepts behind the indicator project and how to set up a monitoring site, take samples, and record data. The workshops are designed to walk students through all of the necessary steps for monitoring the environment.

Another Project LEAP service is Outdoors 2000. This is an assistance program that also utilizes the services of the AmeriCorps members. This program provides public and private schools and not-for-profit groups with physical assistance to improve outdoor laboratories or classrooms. The program runs between April 1 and August 31 this year, and applications are due by April 1 this year.. Through Outdoors 2000, IDEM can provide up to eight persons to work from three to six hours on an outdoors environmental project with which you may need help. Unfortunately, our workers cannot eradicate poison ivy or spray chemicals. While we assist with manual labor and education, schools must provide the materials and supervision. It is a program that has been successful for us as well as the schools we have worked with.

Finally, I want to be sure you know about the Project LEAP Lending Library. It is a collection of environmental educational materials maintained by IDEM and the Indiana State Library. The collection includes books, videos, slides, transparencies, laser discs and CD-ROMS.

There is no fee for borrowing materials and any Indiana teacher or educator may borrow them. You may obtain them through your school library. The materials also all have suggested grade levels. You may see a listing of the materials on the Project LEAP section of the IDEM Web site or through the State Library's on-line catalogue.

I have taken some time this morning to talk about Project LEAP. That is for two reasons. First, I am very proud of the success of this project. Our staff has put the time, energy and their hearts into making the project a success. It is something we believe in. Environmental education is important to us. But second, I want you to understand, through learning about Project LEAP, how important we believe it is to learn by doing . . . by giving students hands-on experience. It is vital that we help them make that personal connection between their lives and their environment.

That is my challenge to you today. Look at what you are doing in the classroom to teach your students about the importance of our environment and ask yourselves is it all you can do. Find ways to make the experience more connected to your students. IDEM is here to do what we can to help. Use our experience as your guide and inspiration. Remember how you became

connected to your environment. Remember how important it is to you. Then find a way to make that connection with your students.

Plato wrote in his work *The Republic*: "Those with torches will pass them on to others." You teachers here today carry an important environmental torch. It is up to you to find a way to pass it on . . . to light other torches.

We at IDEM will strive to be your partner in the effort. We will continue to work to lead and teach by example. Together, we can make a difference and help prepare environmentally literate and caring citizens for the Twenty-First Century.